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PENSOFT

# *Tropidophis paucisquamis* (Müller *in* Schenkel, 1901) (Serpentes, Tropidophiidae): first record from Paraná state and southern Brazil

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## Abstract

The tropidophiid snake *Tropidophis paucisquamis* is an endemic species of the Atlantic Forest domain, occurring in southeastern Brazil from Espírito Santo to São Paulo states along the Serra da Mantiqueira and Serra do Mar as far as the slopes of Serra do Paranapiacaba, the southern limit of its known distribution. As part of our study of herpetofauna in the high Ribeira basin of Paraná, we report the first record of *T. paucisquamis* from the state. This extends the distribution of this species to southern Brazil.

## Key Words

*Tropidophis paucisquamis,* distribution, Atlantic Forest, Paraná, Southern Brazil.

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## Introduction

The genus *Tropidophis* Bibron, 1840 comprises 32 species commonly known as dwarf boas, 3 of them restricted to the Brazilian Atlantic Forest domain (Curcio et al. 2012, Wallach and Williams 2014). *Tropidophis paucisquamis* (Müller *in* Schenkel, 1901) is the most southern mainland species of the genus, occurring from the states of Espírito Santo to São Paulo along the Serra da Mantiqueira and Serra do Mar (Curcio et al. 2012).

The geographic separation of *T. paucisquamis* from other Atlantic Forest congeners may be due to riverine barriers (Pellegrino et al. 2005) and refuge isolations (Carnaval and Moritz 2008) that account for distributional patterns of other vertebrate taxa. In the southern portion of its known distribution, the southernmost records of *T. paucisquamis* are restricted to Serra do Paranapiacaba, which is limited in the south by the left bank of the Ribeira River, São Paulo state (Curcio et al. 2012).

During a field study conducted at the upper Ribeira river basin, Paraná, we recorded 1 specimen of *T. paucisquamis,* which is documented here. This record extends the distribution of this species to that Paraná and to southern Brazil.

## Methods

Since 2011, we have been conducting a study on the herpetofauna at the Capivari river, a tributary of the right bank of the upper Ribeira River, Paraná, Brazil. This study

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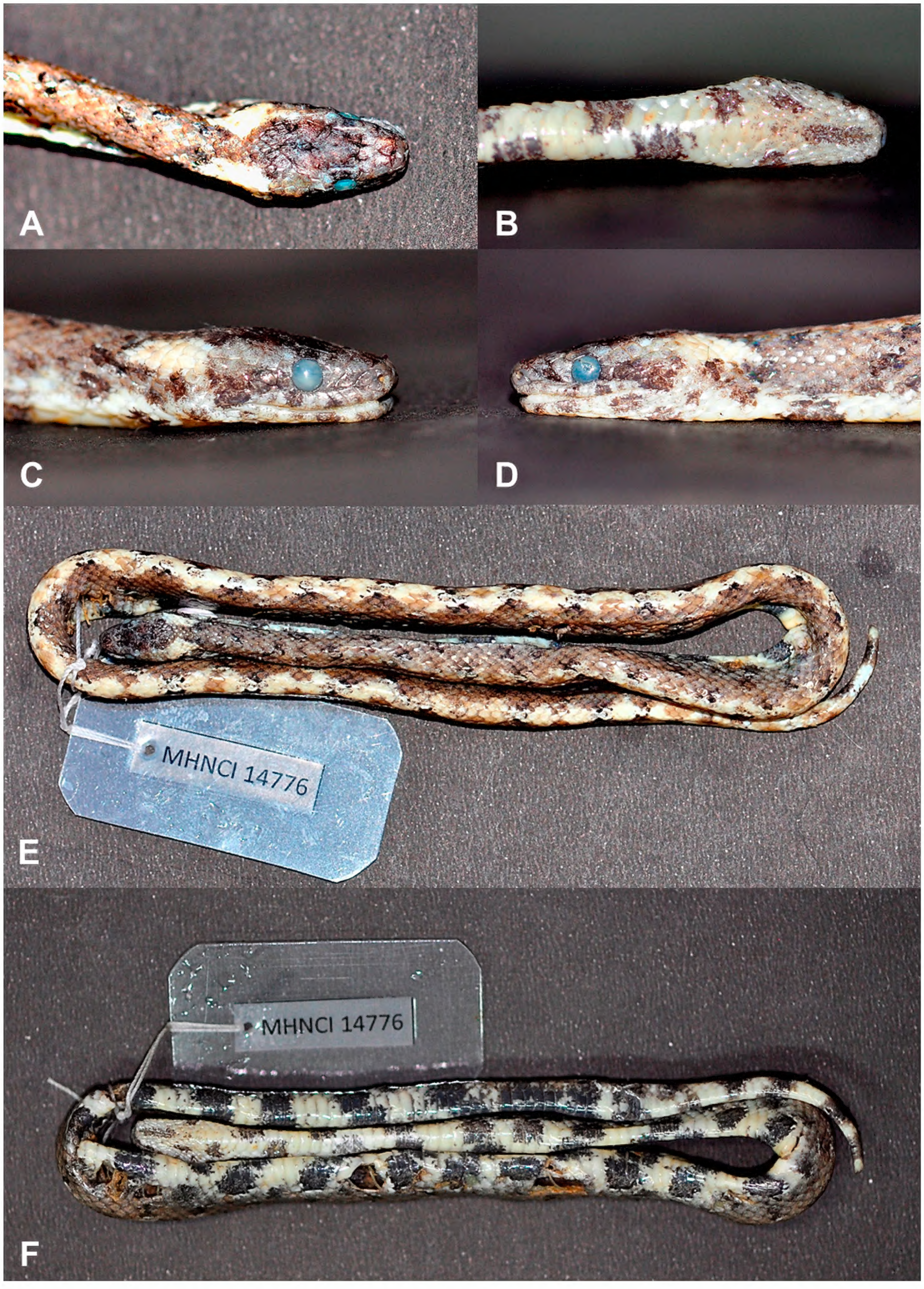


**Figure 1.** *Tropidophis paucisquamis* collected in the upper Ribeira river basin, municipality of Campina Grande do Sul, Paraná state, Brazil. **A–D.** Dorsal, ventral, right side and left side view of the head. **E–F.** Dorsal and ventral view of the body.

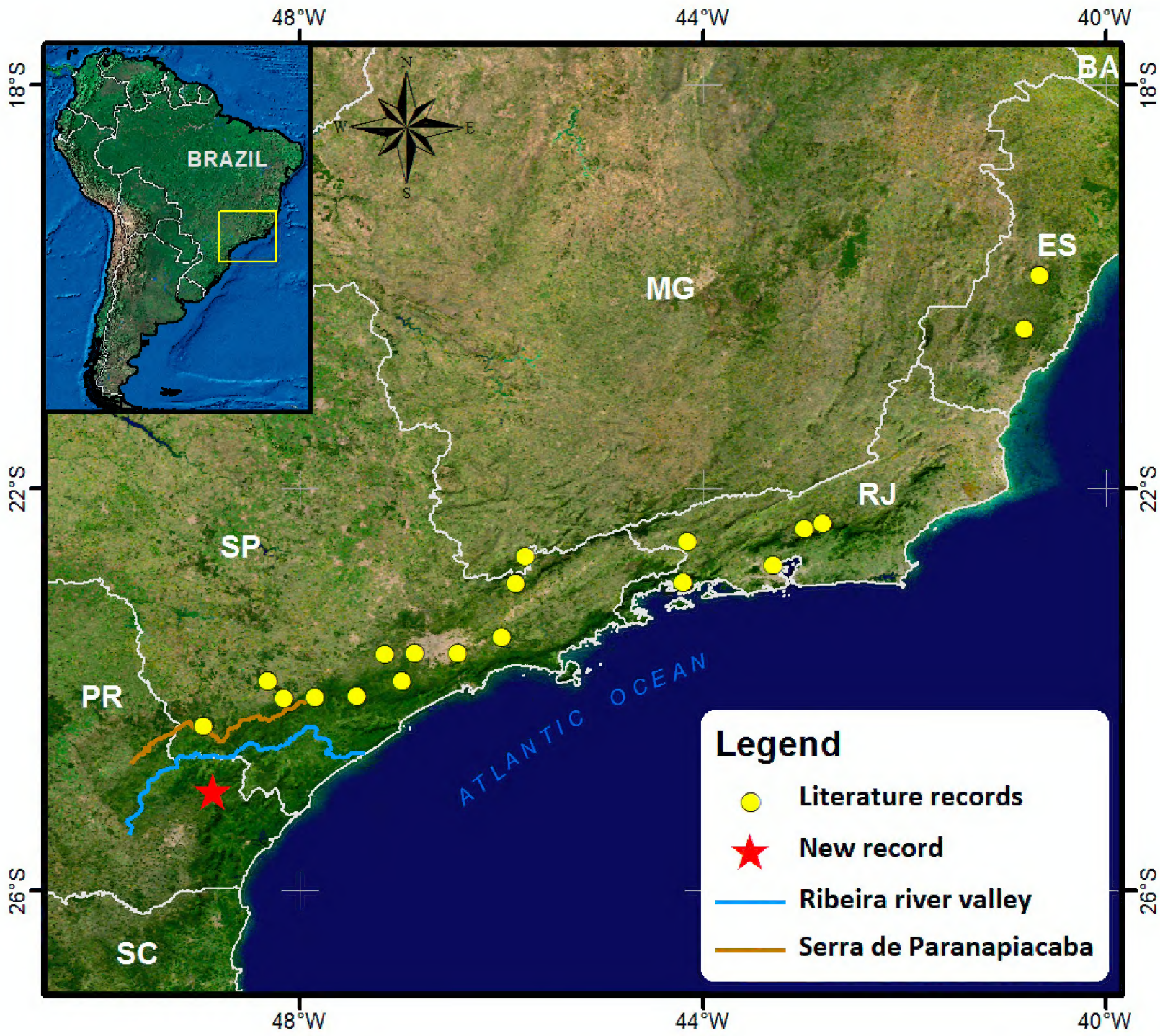


**Figure 2.** Known occurrences (yellow dots) and the new record of *Tropidophis paucisquamis* (red star) in Brazil. Abbreviations: BA = Bahia; ES = Espírito Santo; MG = Minas Gerais; PR = Paraná; RJ = Rio de Janeiro; SC = Santa Catarina; SP = São Paulo.

relied mostly on active searches and by pitfall traps to collect data. During a field trip in April 2013, we recorded 1 dead specimen of *T. paucisquamis* (Fig. 1). The specimen was collected, fixed in 10% formalin, preserved in 70% ethanol, and stored at the Museu de História Natural Capão da Imbuia (MHNCI), Curitiba, Paraná. Fernanda Stender de Oliveira reviewed the specimen and confirmed its identification. Sampling was performed under the SISBIO/ICMBIO license number 10.500.

## Results

**New record.** Brazil: Paraná: Campina Grande do Sul municipality: Capivari River (24°59′21″ S, 048°35′35″ W; elev. 800 m), leg. Capela DJV, 11 April 2013, 1 specimen (MHNCI.14776).

The specimen was found dead on a road surrounded by dense Atlantic Forest. It was a female, with a snout-vent length of 301 mm; the tail was 39 mm long, there were 167 ventral scales, 23 dorsal scales, and with a small interpariental scale (sensu Hedges 2002).

## Discussion

Our record of *T. paucisquamis* represents the first one from Paraná state and southern Brazil. This record extends this species' distribution 80 km south from the nearest occurrence, based on the data provided of Curcio et al. 2012 (Fig. 2).

The new record shows that the Ribeira River does not represent a barrier to *T. paucisquamis* to the south. The continuous structure of the Atlantic Forest system over the region of Serra de Paranapiacaba and the Ribeira river basin may explain such a distributional pattern. It is possible that this species also occurs east of the Serra do Mar (Paraná), given the continuity of dense forest systems between the regions. Nonetheless, *T. paucisquamis* is possibly limited in the south and west to the Ribeira river basin in Paraná, since the Araucária forests that predominate in these regions of the Paraná plateau may impose a barrier to various species of reptiles (Morato 1995).

The Ribeira river valley serves as a corridor to the highlands for species of the Atlantic Forest, such as *Bothrops jararacussu* Lacerda 1994, *Micrurus corallinus* (Merrem, 1820), and *Clelia plumbea* (Wied-Neuwied, 1820) (Morato 1995). It is possible that *T. paucisquamis* shares this pattern. The existence of this natural corridor requires the development of conservation efforts along Ribeira River, such as the creation of protected areas and the recovery of riparian forests.

## Acknowledgments

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## Authors' Contributions

DJVC, SAAM, FP, GB, and LHAC conducted fieldwork; JCML and DJVC made the measurements of specimen; SAAM wrote the text; and JCML and DJVC made the final revisions.

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